REMOTE INPUT/OUTPUT CONTROL APPARATUS AND METHOD IN REAL-TIME SYSTEM



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PURPOSE: A remote input/output control apparatus and method in an RTS(Real-Time System) is provided to achieve foreground execution to transfer remote input to another application program by sharing a device descriptor table in an RTS. CONSTITUTION: An RTS comprising an OS (Operating System)(31) and a plurality of server processes(32) is connected with a remote system(33) through an network. The OS(31) containing a plurality of device drivers(31-1) controls remote input/output for the remote system(33) through various kinds of networks in various communication methods. In addition, the OS(31) contains a device descriptor table(31-2) and a plurality of file descriptor tables(31-3). The device descriptor table(31-2) controls each device driver(31-1) so that remote input/output processing by the server processes(32) can be executed. The file descriptor tables (31-3) make the device descriptor table(31-2) shared so that the server processes(32) can use each device driver(31-1) using the device descriptor table(31-2). Each server process (32) supports access with the remote system(33) so that remote input/output can be carried out through the device drivers(31-1) of the OS (31) by using an allocated file descriptor table(31-3) and sharing the device descriptor table(31-2). The remote system(33), comprised of an OS(33-1) and a client program(33-2), transmits the command inputted from an operator to the RTS side through a network or outputs a result message received through the network from the RTS side so that the operator can confirm.